

Bay Area Express Lane Network

Overview

The region’s plan to create a Bay Area network of high-occupancy toll (HOT) lanes — known as Express Lanes — took a major step forward in October 2011, when the California Transportation Commission (CTC) determined that the Metropolitan Transportation Commission’s (MTC) plan to add 290 miles of express lanes meets the eligibility requirements for the implementation and operation of HOT lanes established by state statute. The routes addressed in the CTC action would be operated in tandem with up to 280 miles of express lanes previously authorized under state law to create at completion in 2035 a seamless, integrated network of 570 miles of express lanes. Express Lanes allow solo motorists to bypass congestion for a fee while carpools and buses use the lanes free of charge. Tolls vary with congestion levels to keep the lanes free-flowing.

Newly Eligible Express Lanes

MTC’s planned Express Lane additions would create a north-south backbone network encompassing Interstate 80 in Alameda, Contra Costa and Solano counties, Interstate 680 in Solano and Contra Costa counties, and Interstate 880 in Alameda County, along with the approaches to the Dumbarton and San Mateo-Hayward bridges on State Route 84 and State Route 92. Of the 290-mile expansion, 150 miles would involve converting existing diamond lanes, or high-occupancy vehicle (HOV) lanes, to Express Lanes, and 120 miles would involve widening freeways to create new HOV/Express Lanes in both directions. The remaining 20 miles involve a stretch of Interstate 880 through Oakland that cannot physically accommodate Express Lanes per se, but that is targeted for a variety of advanced operational strategies to smooth traffic flows.

Previously Authorized Express Lanes

Several Express Lane projects are in operation or under development on previously authorized corridors in Alameda, Santa Clara and San Mateo counties. The region’s first Express Lane opened in September 2010 on southbound Interstate 680 over the Sunol Grade. The next project to open, in Spring 2012, will be on the Route 237/Interstate 880 HOV connectors in Santa Clara County. The region is also building an Express Lane along eastbound and westbound Interstate 580 in eastern Alameda County. Studies are under way



	Number of Miles	Miles Previously Authorized	Miles of New Authority (November 2011)
Convert existing HOV lanes to Express Lanes*	340	190	150
Widen existing freeways to create Express Lanes	210	90	120
Operational gap closure	20	0	20
Total	570	280	290

*includes the existing I-680 Sunol Express Lanes

for adding an Express Lane in the northbound direction of the I-680 Sunol Grade. Express Lanes are also under development on Route 85 and Highway 101 in Santa Clara County and portions of San Mateo County.

(Continued)

Project Goals

Bay Area highway congestion consistently ranks among the worst in the nation. In many corridors, commute-hour travel is slow and unreliable. The carpool-lane system is fragmented by gaps that can't be closed for many decades due to lack of funds, making carpooling and bus transit less effective. The region's adopted, long-range *Transportation 2035 Plan* calls for a Regional Network of Express Lanes, with these goals:

- **Connectivity:** Use Express Lane toll revenues to close gaps within the existing high-occupancy vehicle (HOV) lane system to increase travel time savings for carpools and buses.
- **Efficiency:** Optimize throughput on freeway corridors to better meet current and future traffic demands, using excess capacity in the existing HOV system.
- **Reliability:** Provide a reliable, congestion-free transportation option.

Recent Analysis

Work completed in conjunction with MTC's application to the CTC outlines possible phasing, tolling, financing and operational approaches in order to demonstrate financial and operational feasibility of the Express Lane Network under a range of conditions.

Operational Assessment: The Express Lane Network will make optimum use of available capacity within the existing HOV lanes and within the new Express Lanes. This utilization along with improved transit reliability within the Network corridors will improve the operation of the Bay Area's freeways.

Costs: Costs to design, construct, implement and operate the segments of the Network were developed by segment, taking into account improvements that ensure safety, operation and cost containment. The total capital cost ranges from \$3 billion to \$3.6 billion (in year of expenditure dollars), depending on the speed of implementation.

Schedule: The network includes two types of projects: 1) conversion of existing HOV lanes; and 2) construction of new lanes. In financial analysis scenarios described below, conversion projects generally precede construction of new lanes.

Financial Analysis: The financial analysis includes the I-680 and I-580 authorized corridors, reflecting Alameda County Transportation Commission's expressed interest in entering into an agreement with MTC. The Route 237 and U.S. 101/Route 85 projects are assumed to remain financially independent. To demonstrate financial feasibility, the analysis explores two scenarios that bookend a range of possible outcomes:

Base Case – Shows the bulk of the network could be completed by 2025 (with one last segment in 2030) with higher revenue from higher traffic demand, tolling throughout the daytime hours (e.g., 6 AM to 7 PM), and increasing HOV occupancy requirements to HOV3+ as the network becomes more connected in 2020.

Conservative Case – Shows that the network could be completed by 2035, under more conservative revenue assumptions, such as limiting tolling to peak periods and maintaining current HOV occupancy requirements until carpool lanes fill up or 2035, whichever comes first.

While it is too early to determine the actual toll rates, the analysis demonstrates financial feasibility based on toll rates in the range of \$0.14 per mile to \$1.00 per mile in 2020. These rates are comparable to current rates on the I-680 Express Lanes (average peak-period toll of \$3 for 14 miles) and State Route 91 Express Lanes in Orange County (\$10 for 10 miles).

What Comes Next?

In the coming months, MTC and our regional partners, including Caltrans and the CMAs, will undertake the following steps to establish the network:

- Conduct detailed analysis of traffic, toll policy, revenue and financing options.
- Devise and implement a public outreach process.
- Assign project development responsibilities.
- Develop a project-specific Project Study Report for each construction project, followed by a Project Report and environmental documentation, including required companion studies.
- Determine a method of project delivery for each segment.
- Coordinate on operating policies.

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